

9427

Diag. Cht. No. 1234-2.

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey HYDROGRAPHIC
Field No. PE-40-4-74
Office No. H-9427

LOCALITY

State NORTH CAROLINA
General Locality ONSLOW BAY
Locality .. OET. NEW RIVER INLET TO ATLANTIC BEACH

1974

CHIEF OF PARTY

Ralph J. Land

LIBRARY & ARCHIVES

DATE 12/20/74

9427

HYDROGRAPHIC TITLE SHEET

H-9427

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form,
filled in as completely as possible, when the sheet is forwarded to the Office.FIELD NO.
PE-40-4-74State North CarolinaGeneral locality Onglow BayLocality Off New River Inlet to Atlantic BeachScale 1:40,000 Date of survey 31 May-19 June, 1974Instructions dated 13 November 1973 Project No. OPR-437-PE-74Vessel NOAA Ship PEIRCE, CSS-28Chief of party Commander Ralph J. LandCDR. R.J. Land, LCDR. J.K. Callahan, LT. D.L. Suloff, LTJG J.M. BarnhillSurveyed by LTJG P.D. Harman, ENS K.M. Holden, ENS C.D. Mason, ENS B.B. JohnsonRoss Fathometer 200-A S/N C-537-1029-5Soundings taken by echo sounder, hand lead, pole Raytheon Fathometer 723-D S/N 37010Graphic record scaled by Hydroplot System and Ship's PersonnelGraphic record checked by Ship's Officers and Ship's Survey PersonnelProtracted by inked Automated plot by Hydroplot SystemSoundings ~~protracted~~ by Hydroplot System EDP-AMCEDP-AMC
Calcomp 618Soundings in fathoms feet at MLW MLWREMARKS: All times are Greenwich Mean Time, 000° W.Applied to stls 1/30/75
CAB

DESCRIPTIVE REPORT

To Accompany

Hydrographic Survey PE-40-4-74

Registry Number H-9427

OPR-437-PE-74

Coast of North Carolina

1974 Field Season

NOAA Ship PEIRCE, CSS-28

Ralph J. Land

Cdr., NOAA

Chief of Party

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H-9427

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A. PROJECT

This survey is an integral part of project SCOPE. It was conducted in accordance with Project Instructions OPR-437-PE-74, North Carolina Coast dated 13 November 1973 as amended by Change No. 1 to Project Instructions OPR-437-PE-74, North Carolina Coast dated 10 December 1973.

B. AREA SURVEYED

The area surveyed was off the North Carolina coast in the vicinity of Bogue Banks. The area can generally be described as being bounded on the North by the 30 foot curve, on the East by Long. $76^{\circ} 44'$ W, on the South by the 60 foot curve, and on the West by a line from Lat. $34^{\circ} 25.1'$ N, Long. $77^{\circ} 14.1'$ W. to Lat. $34^{\circ} 30.0'$ N, Long. $77^{\circ} 14.1'$ W, and thence to Lat. $34^{\circ} 30.0'$ N, Long. $77^{\circ} 21.3'$ W. on the 30 foot curve. This survey was conducted from 31 May 1974 to 19 June 1974.

The area surveyed junctions with H-9426, 1:40,000, 1974 to the West, H-9044, 1:80,000, 1969 to the South, and H-9042, 1:20,000, 1969 and H-9421, 1:10,000, 1974 to the East. The Prior survey covering this area is H-4767, 1:40,000, 1927.

C. SOUNDING VESSEL

All soundings were obtained by the NOAA Ship PEIRCE.

D. SOUNDING EQUIPMENT

On Julian Day 168 from 033551 GMT to 042041 GMT and from 202634 GMT to 210140 GMT, soundings were obtained with a Raytheon Survey Fathometer, Model 723-D, Serial No. 37010. All other soundings taken during this survey were obtained with a Ross Fathometer, Model 200-A, Serial No. C-537-1039-5. Depths encountered while using these instruments ranged from 29 feet to 64 feet. All soundings were in feet and tenths of feet.

Echo sounder corrections consist of two types; velocity corrections and TRA corrections. These corrections are discussed in further detail in the Velocity Report, a separate text included in this report.

No problems were encountered with either fathometer which would affect the accuracy of the soundings.

E. SMOOTH SHEET

The smooth sheet for this survey will be computer plotted by the Atlantic Marine Center from raw data provided on punch tape by the NOAA Ship PEIRCE.

F. CONTROL

Electronic Raydist operating in the hyperbolic mode at a frequency of 3296.400 KHz provided horizontal control for the entire survey. For further details, see the Electronic Control Report which accompanies this report.

G. SHORELINE ✓

There is no shoreline within the limits of this survey.

H. CROSSLINES ✓

Crosslines constitute approximately 4% of all hydrography exclusive of developments. Crossline depths are in good agreement with those of the regular sounding lines; agreement is normally within 1 foot.

I. JUNCTIONS ✓

This survey junctions with the following surveys:

| | | |
|--------|----------|------|
| H-9426 | 1:40,000 | 1974 |
| H-9044 | 1:80,000 | 1969 |
| H-9042 | 1:20,000 | 1969 |
| H-9421 | 1:10,000 | 1974 |

Comparison with soundings at junctions is good. Differences in depths are usually 2 feet or less.

J. COMPARISON WITH PRIOR SURVEYS ✓

The prior survey covering the same area as this survey is

| | | |
|--------|----------|------|
| H-4767 | 1:40,000 | 1927 |
|--------|----------|------|

Comparison soundings are in good agreement; differences are usually within 2 feet.

There are no pre-survey review items within the limits of hydrography of this survey.

K. COMPARISON WITH CHART

A comparison was made with the largest scale chart covering the survey area; C & GS 1234, Cape Lookout to New River, 12 Ed, 4/22/72. Comparison soundings were in very good agreement, usually within 2 feet.

L. ADEQUACY OF SURVEY

This survey is adequate to supersede prior surveys for charting purposes.

M. AIDS TO NAVIGATION

There is one aid to navigation located within the limits of this survey. This buoy is a black and white bell buoy marked "BI", lighted by a ^{Morse} ~~Morris~~ Code "A", and is located as follows: Lat. $34^{\circ} 37.8'$ N. Long. $77^{\circ} 05.4'$ W.

This buoy marks the approach to Bogue Inlet and was found to be within 250 meters of its charted position.

In addition, there is one privately maintained buoy within the limits of this survey located as follows:

Lat. $34^{\circ} 40.4'$ N. Long. $76^{\circ} 44.7'$ W.

This buoy is a red can buoy standing three feet above the water line. A two foot staff projects above the buoy from which is flown a red flag.

This buoy marks the location of an artificial reef consisting primarily of the hull of a sunken Liberty Ship in addition to some old tires and concrete. On ¹⁴12 June, ship's diving personnel made a dive on the reef and reported the following:

The hull of the Liberty Ship was laying on an axis of 330° with her stern very nearly beneath the reef buoy.

The deck plates were intact to the main deck level but the entire superstructure above the main deck level had been removed.

The least depth as determined by leadline with predicted tides applied was 19.6 feet. A 17' sounding was located on H-9421 and was transferred to H-9427.

A copy of a letter from the State of North Carolina Department of Natural and Economic Resources concerning this reef accompanies this report.

Since this reef also falls within the limits of hydrography of H-9421, it was verbally agreed that development of this area would be accomplished by Atlantic Hydrographic Field Party, Launch 1277, LTJG W.A. Wert, Officer In Charge, on sheet AHP-10-2-74, H-9421. Therefore, normal 200 meter line spacing was maintained in the vicinity of the reef on this survey. *see Review Para. 6A*

N. STATISTICS

| | |
|---------------------------|---------------|
| Total Number of Positions | 3731 |
| Total Hydro Miles | 2245.8 n. mi. |

| | |
|----------------------|-------------|
| Total Crosslines | 88.2 n. mi. |
| Total Square Miles | 170 |
| TDC Observations | 1 |
| Nansen Casts | 1 |
| Bottom Samples | 27 |
| Leadline Comparisons | 2 |

O. MISCELLANEOUS

All times are GMT.

Bottom samples were not obtained in area designated as "Danger Area" located on C & GS Chart 1234, Cape Lookout to New River, 13 Ed., 3/16/74, due to the possibility of unexploded ordnance being located in the area. A copy of the radio/teletype message from LANTMARCEN waiving bottom sampling requirements is included in this report.

All rejected data is on the master data tape. Rejected soundings have been changed to missed depths and fix data ignored by using a "3" in the indicator of the short word on the corrector tape. Some rejected fix numbers were used again at a later time and these were logged as duplicate fix numbers.

On Julian Day 155, the punch tape jammed in the high speed punch (HSP) while on line. Approximately thirteen minutes of data were not punched on the master data tape. All soundings

during this period were logged correctly on TTY-2. At the end of this period, a new master data tape was begun and all soundings missed were punched onto an edited master data tape from data logged on TTY-2. The three resulting master data tapes are broken down by time and fix numbers as follows:

Tape 1

From Time 115040 Pos. # 1138
To Time 223147 Pos. # 1293 + 5

Tape 2

From Time 223237 Pos. # 1294
To Time 225507 Pos. # 1300

Tape 3

From Time 225834 Pos. # 1301
To Time 235936 Pos. # 1316 + 5

Time lost during this survey was due, in part, to large U.S. Armed Forces amphibious maneuvers, Operation Solid Shield, taking place within the limits of hydrography in the area of Onslow Beach. During these maneuvers the western quarter of PE 40-4-74 was off limits. Later, the area could often be entered only during night hours. In addition, Raydist control was lost on numerous occasions due to electrical storms in the area.

Within the area designated "Danger Area," numerous pock marks and debris were noted on the fathometer trace. It is assumed

that these are the result of underwater explosions and sunken material resulting from maneuvers held in the area.

P. RECOMMENDATIONS

It is recommended that this survey be considered adequate for charting purposes and that it supersede prior surveys.

It is also recommended that the positions of Salter Path Water Tank and Bogue Banks Water Tank be charted on future additions of Chart 1234, Cape Lookout to New River. Both are prominent landmarks in this area. Their addition to the chart would be of considerable aid to navigation in this area.

Their positions are as follows:

Salter Path Water Tank

Lat. $34^{\circ} 40' 53.894''$ N

Long. $76^{\circ} 55' 19.758''$ W

Bogue Banks Water Tank

Lat. $34^{\circ} 40' 00.480''$ N

Long. $77^{\circ} 01' 35.664''$ W

Both tanks were located by Photo Party 62 using third order traverse.

Q. REFERENCE TO REPORTS

Reference can be made to the following reports:

- 1) Velocity Report, PE 40-4-74, H-9427
Coast of North Carolina
- 2) Electronic Control Report, PE 40-4-74, H-9427
Coast of North Carolina

Respectfully submitted for approval by



Charles D. Mason

Ens., NOAA

Times of Hydrographic Operations, OPR-437, PE-40-4-74

| <u>DAY</u> | <u>JULIAN DAY</u> | <u>TIME (GMT)</u> | |
|--------------|-------------------|-------------------|-----------|
| | | <u>FROM</u> | <u>TO</u> |
| 31 May 1974 | 151 | 183221 | 2400 |
| 1 June 1974 | 152 | 000001 | 213805 |
| 2 June 1974 | 153 | 024454 | 2400 |
| 3 June 1974 | 154 | 000001 | 2400 |
| 4 June 1974 | 155 | 000001 2400 | 2400 |
| 5 June 1974 | 156 | 000001 | 2400 |
| 6 June 1974 | 157 | 000001 | 213933 |
| 10 June 1974 | 161 | 171605 | 2400 |
| 11 June 1974 | 162 | 000001 | 2400 |
| 12 June 1974 | 163 | 000001 | 2400 |
| 13 June 1974 | 164 | 000001 | 2400 |
| 14 June 1974 | 165 | 000001 | 182643 |
| 15 June 1974 | 166 | 164904 | 172601 |
| 16 June 1974 | 167 | 010022 | 2400 |
| 17 June 1974 | 168 201 | 000001 | 210140 |
| 18 June 1974 | 169 | 121949 | 2400 |
| 19 June 1974 | 170 | 000001 | 010027 |

CORRECTIONS
TO
ECHO SOUNDINGS

General

This report covers echo soundings taken by the NOAA Ship PEIRCE from 31 May 1974 to 18 June 1974. The corrections apply only to the survey PE-40-4-74, H-9427.

Final corrections are a combination of velocity and TRA corrections which are discussed separately in this report.

The ship operated with two fathometers :

Ross model 5000, S/N C-537-1039-5

Raytheon model 723-D, S/N 37010

All fixes were obtained by the Ross fathometer with the exception of fixes 3294 thru 3301 and 3504 thru 3511. Those fixes were obtained by the Raytheon fathometer.

The initial was maintained at zero on both fathometers thru-out the entire survey.

Velocity Corrections

The velocity table is a composite table derived by combining the TDC and Nansen casts taken during the course of this survey. The casts were in excellent agreement enabling a single velocity table extraction. The casts were taken simultaneously at Lat 34 31.0N, Long 76 54.9 W.

TRA CORRECTORS

TRA corrections are a combination of the following:

- 1) Draft
- 2) Initial Variation
- 3) Settlement and Squat

Draft

Draft corrections were obtained by measuring the draft of the ship upon entering and leaving port. The difference was then apportioned in 0.1 ft. increments over the entire trip. An abstract of draft is attached to this report.

Initial Error

The Ross fathometer was maintained at zero initial by utilizing its built in calibration circuitry and thereby had no initial error.

The Raytheon fathometer was maintained with zero initial by routine phase checks.

Settlement and Squat

Determination of settlement and squat for the NOAA Ship PEIRCE took place on 1 April 1974 and the following corrections were derived:

| Correction | Throttle Setting |
|------------|------------------|
| 0.0 ft | 1's |
| 0.05 | 2's |
| 0.1 | 3's |
| 0.2 | 4's |
| 0.3 | 5's |
| 0.4 | 6's |
| 0.55 | 7's |
| 0.8 | 8's |

An abstract of reduced speed is attached to this report.

TRA Correctors

TRA correctors may be inserted in any one of the following places:

- 1) Hydroplot Controller, appears on master tape
- 2) Corrector Tape
- 3) TC/TI Tape

The total corrector is the algebraic sum of the correctors in the above locations.

For this survey the Hydroplot Controller was maintained at +11.0 ft. No TRA correctors appear on the corrector tape. Deviations from +11.0 ft are accounted for on the TC/TI tape.

ATTACHMENTS TO THE VELOCITY REPORT

- 1.) Printout of TC/TI Tape
 - 2.) Printout of the Velocity Tape
 - 3.) Abstract of Draft
 - 4.) Abstract of Speed
 - 5.) Form CAM 3-12
 - 6.) Leadline Comparison
-

TC/TI TAPE PRINTOUT

183221 0 1003 0001 151 283000 009427
183723 0 0001
000001 0 0000 0001 152 283000 009427
024454 0 0000 0001 153 283000 009427
000001 0 1001 0001 154 283000 009427
000001 0 1002 0001 155 283000 009427
000001 0 1003 0001 156 283000 009427
000001 0 1004 0001 157 283000 009427
171605 0 1001 0001 161 283000 009427
000001 0 1001 0001 162 283000 009427
110315 0 1005
120130 0 1001
120450 0 1005
135721 0 1001
000001 0 1002 0001 163 283000 009427
000001 0 1002 0001 164 283000 009427
000001 0 1003 0001 165 283000 009427
001111 0 1007
005057 0 1003
112959 0 1009
122448 0 1003
122654 0 1009
141945 0 1003
153708 0 1009
154300 0 1003
164904 0 1003 0001 166 283000 009427
010022 0 1004 0001 167 283000 009427
000001 0 1004 0001 168 283000 009427
142133 0 1008
142623 0 1004
121949 0 1005 0001 169 283000 009427
000001 0 1005 0001 170 283000 009427

VELOCITY TABLE 1

OPF-437, PF-40-4-74, H-9427

| | | | | | | |
|--------|---|------|------|-----|--------|--------|
| 000190 | 0 | 0008 | 0001 | 000 | 283000 | 009427 |
| 000232 | 0 | 0010 | | | | |
| 000275 | 0 | 0012 | | | | |
| 000317 | 0 | 0014 | | | | |
| 000360 | 0 | 0016 | | | | |
| 000403 | 0 | 0018 | | | | |
| 000445 | 0 | 0020 | | | | |
| 000485 | 0 | 0022 | | | | |
| 000531 | 0 | 0024 | | | | |
| 000574 | 0 | 0026 | | | | |
| 000617 | 0 | 0028 | | | | |
| 999999 | 0 | 0030 | | | | |

ABSTRACT OF DRAFT

| <u>DATE</u> | <u>JULIAN DAY</u> | <u>DRAFT</u> |
|--------------|-------------------|--------------|
| 31 May 1974 | 151 | 10.3 ft |
| 1 June 1974 | 152 | 10.2 |
| 2 June 1974 | 153 | 10.2 |
| 3 June 1974 | 154 | 10.1 |
| 4 June 1974 | 155 | 10.0 |
| 5 June 1974 | 156 | 9.9 |
| 6 June 1974 | 157 | 9.8 |
| 10 June 1974 | 161 | 10.1 |
| 11 June 1974 | 162 | 10.1 |
| 12 June 1974 | 163 | 10.0 |
| 13 June 1974 | 164 | 10.0 |
| 14 June 1974 | 165 | 9.9 |
| 15 June 1974 | 166 | 9.9 |
| 16 June 1974 | 167 | 9.8 |
| 17 June 1974 | 168 | 9.8 |
| 18 June 1974 | 169 | 9.7 |
| 19 June 1974 | 170 | 9.7 |

ABSTRACT OF REDUCED SPEED

| <u>DAY</u> | <u>JULIAN DAY</u> | <u>SPEED</u> | <u>FROM (GMT)</u> | <u>TO (GMT)</u> |
|--------------|-------------------|--------------|-------------------|-----------------|
| 31 May 1974 | 151 | 6's | 183221 | 183722 |
| | | 8's | 183723 | 2400 |
| 1 June 1974 | 152 | 8's | 000001 | 213805 |
| 2 June 1974 | 153 | 8's | 024454 | 2400 |
| 3 June 1974 | 154 | 8's | 000001 | 2400 |
| 4 June 1974 | 155 | 8's | 000001 | 2400 |
| 5 June 1974 | 156 | 8's | 000001 | 2400 |
| 6 June 1974 | 157 | 8's | 000001 | 213933 |
| 10 June 1974 | 161 | 8's | 171605 | 2400 |
| 11 June 1974 | 162 | 8's | 000001 | 110314 |
| | | 6's | 110315 | 120129 |
| | | 8's | 120130 | 120449 |
| | | 6's | 120450 | 135720 |
| | | 8's | 135721 | 2400 |
| 12 June 1974 | 163 | 8's | 000001 | 2400 |
| 13 June 1974 | 164 | 8's | 000001 | 2400 |
| 14 June 1974 | 165 | 8's | 000001 | 001110 |
| | | 6's | 001111 | 005056 |
| | | 8's | 005057 | 112958 |
| | | 4's | 112959 | 122447 |
| | | 8's | 122448 | 122653 |
| | | 4's | 122654 | 141944 |
| | | 8's | 141945 | 153707 |
| | | 4's | 153708 | 154259 |
| | | 8's | 154300 | 182643 |
| 15 June 1974 | 166 | 8's | 164904 | 172601 |
| 16 June 1974 | 167 | 8's | 010022 | 2400 |
| 17 June 1974 | 168 | 8's | 000001 | 142132 |
| | | 6's | 142133 | 142622 |
| | | 8's | 142623 | 210140 |
| 18 June 1974 | 169 | 8's | 121949 | 2400 |
| 19 June 1974 | 170 | 8's | 000001 | 010027 |

CAM3-12,
2-22-74

OPR 437

TRA CORRECTION ABSTRACT

VESSEL PEIRCE SHEET PE-40-4-74 REGISTRY NO. H-9427

| Vol. | Jul. Day | GMT From Time | GMT To Time | Velocity Table ft/fms | Draft | Instru- ment Error Corr. | Initial Corr. | S&S Corr. | TRA Corr. ft/fms | Remarks |
|------|-------------|------------------|----------------|-----------------------------|-------|-----------------------------------|------------------|--------------|------------------------|---------|
| 1 | 165 | 000001 | 001110 | | 9.9 | | | 0.8 | 10.7 | |
| | | 001111 | 005056 | | 9.9 | | | 0.4 | 10.3 | |
| | | 005057 | 112958 | | 9.9 | | | 0.8 | 10.7 | |
| | | 112959 | 122447 | | 9.9 | | | 0.2 | 10.1 | |
| | | 122448 | 122653 | | 9.9 | | | 0.8 | 10.7 | |
| | | 122654 | 141944 | | 9.9 | | | 0.2 | 10.1 | |
| | | 141945 | 153707 | | 9.9 | | | 0.8 | 10.7 | |
| | | 153708 | 154259 | | 9.9 | | | 0.2 | 10.1 | |
| | | 154300 | 182643 | | 9.9 | | | 0.8 | 10.7 | |
| 1 | 166 | 164904 | 172601 | | 9.9 | | | 0.8 | 10.7 | |
| 1 | 167 | 010022 | 2400 | | 9.8 | | | 0.8 | 10.6 | |
| 1 | 168 | 000001 | 142132 | | 9.8 | | | 0.8 | 10.6 | |
| | | 142133 | 142622 | | 9.8 | | | 0.4 | 10.2 | |
| | | 142623 | 210140 | | 9.8 | | | 0.8 | 10.6 | |
| 1 | 169 | 121949 | 2400 | | 9.7 | | | 0.8 | 10.5 | |
| 1 | 170 | 000001 | 010027 | | 9.7 | | | 0.8 | 10.5 | |

CAM 3-12
2-22-74

OPR 437

TRA CORRECTION ABSTRACT

VESSEL PEIRCE

SHEET PE-40-4-74

REGISTRY NO. H-9427

| Vol. | Jul. Day | GMT From Time | GMT To Time | Velocity Table ft/fms | Draft | Instru- ment Error Corr. | Initial Corr. | S&S Corr. | TRA Corr. ft/fms | Remarks |
|------|-------------|------------------|----------------|-----------------------------|-------|-----------------------------------|------------------|--------------|------------------------|--|
| 1 | 151 | 183221 | 183722 | | 10.3 | | | 0.4 | 10.7 | 11.0 ft was maintained in the Hydroplot Comp- |
| | | 183723 | 2400 | | 10.3 | | | 0.8 | 11.1 | troller |
| 1 | 152 | 000001 | 213805 | | 10.2 | | | 0.8 | 11.0 | |
| 1 | 153 | 024454 | 2400 | | 10.2 | | | 0.8 | 11.0 | |
| 1 | 154 | 000001 | 2400 | | 10.1 | | | 0.8 | 10.9 | |
| 1 | 155 | 000001 | 2400 | | 10.0 | | | 0.8 | 10.8 | |
| 1 | 156 | 000001 | 2400 | | 9.9 | | | 0.8 | 10.7 | |
| 1 | 157 | 000001 | 213933 | | 9.8 | | | 0.8 | 10.6 | |
| 1 | 161 | 171605 | 2400 | | 10.1 | | | 0.8 | 10.9 | |
| 1 | 162 | 000001 | 110314 | | 10.1 | | | 0.8 | 10.9 | |
| | | 110315 | 120129 | | 10.1 | | | 0.4 | 10.5 | |
| | | 120130 | 120449 | | 10.1 | | | 0.8 | 10.9 | |
| | | 120450 | 135720 | | 10.1 | | | 0.4 | 10.5 | |
| | | 135721 | 2400 | | 10.1 | | | 0.8 | 10.9 | |
| 1 | 163 | 000001 | 2400 | | 10.0 | | | 0.8 | 10.8 | |
| 1 | 164 | 000001 | 2400 | | 10.0 | | | 0.8 | 10.8 | |

| DAY | TIME | LEAD LINE | FATHO | REMARKS |
|--------|----------------------|--------------|-------|--------------------------|
| 151 | | PORT | | |
| 31 MAY | AT RAIL | AT WL | | |
| | 55.3 | 45.8 | 33.5 | |
| | 56.0 | 46.0 | 33.0 | |
| | 56.0 | 45.9 | 33.0 | |
| | 56.3 | 46.0 | 33.3 | |
| | 56.0 | 45.7 | 32.8 | |
| | 55.8 | 45.0 | 32.8 | |
| | 56.0 | 45.0 | 32.8 | |
| | AVG | | | RAIL TO WL |
| | 55.9 | 45.6 | 33.0 | 10.3 |
| | STBD | | | |
| | AT RAIL | AT WL | | |
| | 55.8 | 45.0 | 32.5 | |
| | 56.2 | 45.0 | 32.5 | |
| | 55.3 | 45.0 | 32.6 | |
| | 55.5 | 45.0 | 33.2 | |
| | 55.0 | 44.6 | 32.5 | |
| | AVG | | | RAIL TO WL |
| | 55.6 | 44.8 | 32.7 | 10.7 |
| | AVG OF PORT AND STBD | | | |
| | 55.75 | 45.2 | 32.85 | |
| | | | 9.9 | DRAFT CORR. |
| | | | 1.57 | VEL. CORR. |
| | 45.25 | 45.2 | 44.32 | TRUE DEPTH |
| | 10.5 | | | RAIL TO W |
| | Inst. Corr. + .88 | | | Not applied to Soundings |

SHEET# PE-40-4-74

PROJECT# OPR-437

| DAY | TIME | LEAD LINE | FATHO | REMARKS |
|---------|------|---------------|----------------|-------------|
| 165 | | PORT | | |
| 14 June | | AT RAIL AT WL | DIGITAL ANALOG | |
| | | 65.3 54.0 | 41.8 41.6 | |
| | | 65.0 54.0 | 41.5 41.4 | |
| | | 65.0 54.0 | 41.2 41.1 | |
| | | 64.0 53.8 | 41.0 41.3 | |
| | | 64.6 54.0 | 41.9 41.6 | |
| | | 64.78 53.95 | 41.48 41.40 | AVERAGE |
| | | | | 10.90 rail |
| | | | | to water |
| | | STBD | | |
| | | AT RAIL AT WL | DIGITAL ANALOG | |
| | | 66.0 54.5 | 41.1 41.2 | |
| | | 66.0 54.0 | 41.6 41.7 | |
| | | 66.0 54.5 | 41.3 41.4 | |
| | | 66.0 54.0 | 40.3 40.4 | |
| | | 66.00 54.25 | 41.07 41.17 | AVERAGE |
| | | | | 11.75 rail |
| | | | | to water |
| | | 65.39 54.10 | 41.27 41.28 | AVERAGE OF |
| | | | | PORT AND |
| | | | | STBD |
| | | | 9.9 9.9 | DRAFT CORR. |
| | | | 2.53 2.53 | VEL. CORR. |
| | | 54.07 54.10 | 53.70 53.71 | TRUE DEPTH |
| | | | 11.32 | RAIL TO WL |
| | | - .39 | - .01 | DIFF |

CAM3-1
2-18-71

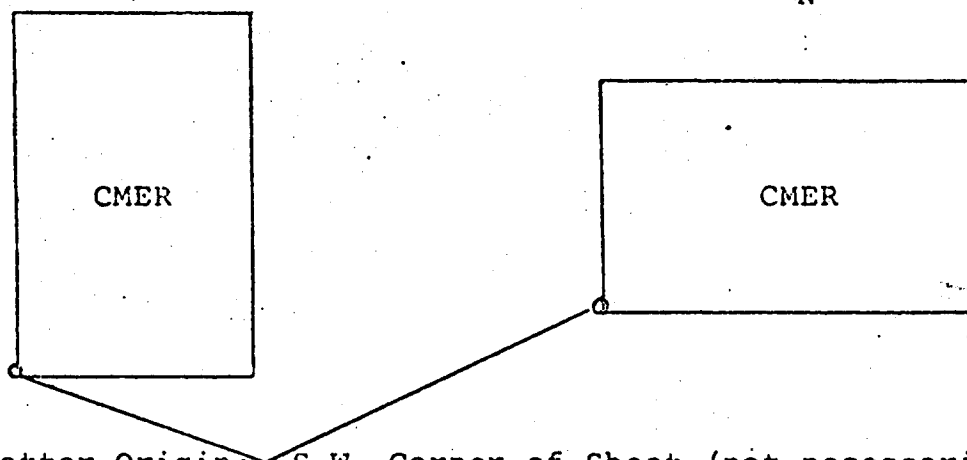
Dorothy Calland
November 4, 1974

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

1. Project No. OPR-437 4. Requested By Verification Branch
2. Reg. No. H-9427 5. Ship or Office AMC
3. Field No. PE-40-4-74 6. Date Required A.S.A.P.
7. Polyconic ☒ Modified Transverse Mercator ☐
8. Central Meridian of Projection 77° 02' 00"
9. Survey Scale: 1: 40,000
10. Size of Sheet (check one):
36 x 54 ☐ 36 x 60 ☒ Other ☐ Specify _____
11. Sheet Orientation (check one):
NYX = 1 ☐ NYX = 0 ☒
N



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)
Latitude 34° 23' 36"
Longitude 77° 22' 30"
13. G.P.'s of triangulation and/or signals attached ☐
14. Material Desired: Tracing Paper ☐ Mylar ☒
Smooth Sheet ☒ Other ☐ Specify _____
15. Remarks: _____

ELECTRONIC CONTROL REPORT
PE-40-4-74 H-9427

A. Horizontal Control

Horizontal control for the entire survey, positions 1 through 3731, was established through the use of electronic Raydist operating in the hyperbolic mode at a frequency of 3296.400 KHz.

B. Shore Stations

The shore station locations were as follows:

Slave 1: Ashe (Ref #1)
Lat. $34^{\circ} 30' 06.290''$
Long. $77^{\circ} 24' 00.331''$

Master: Swansboro
Lat. $34^{\circ} 38' 48.976''$
Long. $77^{\circ} 05' 46.602''$

Slave 2: Harker
Lat. $34^{\circ} 41' 07.465''$
Long. $76^{\circ} 31' 39.471''$

Ashe (Ref. #1) is a reference marker associated with the published triangulation station Ashe 1962. It is located 10 miles northeast of Surf City on Topsail Island. Station Swansboro was a former Raydist station located at the Swansboro Coast Guard Base, Swansboro, North Carolina. Station Harker was located at Shell Point on Harkers Island. Station Harker was located by Photo Party 62.

C. Calibrations

All calibrations were computed using three-point sextant fixes with check angles to shore signals established by Photo Party 62. All calibration signals were located by third-order traverse or are published triangulation stations. Raydist lane counts were computed using AM 560 and the ship's PDP-8 computer. A calibration consisted of at least four sextant fixes accomplished a minimum of once per working day.

1. Project # OPR- 437 2. Reg. # H- 9427 3. Field # PE-40-4-74

4. Type of Control Raydist (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 3296.4 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range ☐

Range One (R_1)

Station I.D. _____

Range Two (R_2)

Station I.D. _____

Range-Visual ☐

Lat. _____° _____' _____"

Long. _____° _____' _____"

Lat. _____° _____' _____"

Long. _____° _____' _____"

Hyperbolic (3-station) ☒

Slave One

Station I.D. ASHE

Master

Station I.D. SWANSBORO

Slave Two

Station I.D. HARKER

Hyper-Visual ☐

Lat. 34° 30' 06.290"

Long. 77° 24' 00.331"

Lat. 34° 38' 48.976"

Long. 77° 05' 46.602"

Lat. 34° 41' 07.465"

Long. 76° 31' 39.471"

7. Location of Survey:

Range-Range ☐

Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right ☐ $A=0$

Survey area is to observer's Left ☐ $A=1$

Hyperbolic ☒ Looking from survey area toward Master Station:

Slave One must be to observer's Left.

Slave Two must be to observer's Right.

8. ☐ This form is submitted as an aid in preparing a boat sheet.

☐ This form applies to all data on this survey.

☐ This form applies to part of the data on this survey.

| Vessel EDP # | From Time Day | To Time Day | Position Numbers (inclusive) |
|-----------------|------------------|----------------|---------------------------------|
| _____ | _____ | _____ | _____ to _____ |
| _____ | _____ | _____ | _____ to _____ |
| _____ | _____ | _____ | _____ to _____ |

9. Remarks: _____

CALIBRATION SIGNALS

PE-40-4-74

| | | | |
|-----|------------|-------------|--------------------------------|
| 133 | 34 41 1408 | 076 52 4420 | 16' ORANGE TRIPOD |
| 134 | 34 40 5389 | 076 55 1976 | BOGUE BANKS EAST TANK |
| 135 | 34 40 3138 | 076 57 4082 | 16' ORANGE TRIPOD/EMERALD 1962 |
| 136 | 34 40 0775 | 076 59 4007 | 16' ORANGE TRIPOD |
| 137 | 34 40 0048 | 077 01 3566 | BOGUE BANKS WEST TANK |

#

ASCII SIGNAL TAPE
CALIBRATION SIGNALS

PF 40-1-74

PE 40-2-74

PF 40-3-74

PE 40-4-74

| | | | | | | |
|-----|----|----|------|-----|----|------|
| 100 | 34 | 00 | 1377 | 077 | 54 | 1448 |
| 101 | 33 | 50 | 2641 | 077 | 57 | 4644 |
| 102 | 33 | 50 | 4725 | 077 | 57 | 5825 |
| 103 | 33 | 52 | 4637 | 077 | 57 | 2611 |
| 104 | 33 | 57 | 3662 | 077 | 56 | 2984 |
| 105 | 33 | 58 | 1516 | 077 | 55 | 0193 |
| 106 | 33 | 58 | 4861 | 077 | 55 | 0317 |
| 107 | 33 | 58 | 4903 | 077 | 54 | 5923 |
| 108 | 33 | 59 | 5608 | 077 | 54 | 2604 |
| 109 | 34 | 02 | 0392 | 077 | 53 | 4786 |
| 110 | 33 | 51 | 4614 | 078 | 00 | 3345 |
| 111 | 33 | 52 | 2406 | 078 | 00 | 0234 |
| 112 | 33 | 53 | 3338 | 078 | 00 | 5564 |
| 113 | 33 | 53 | 3354 | 078 | 02 | 0677 |
| 114 | 33 | 53 | 3573 | 078 | 01 | 0989 |
| 115 | 33 | 55 | 1666 | 078 | 01 | 1292 |
| 116 | 33 | 57 | 2356 | 078 | 00 | 3400 |
| 117 | 33 | 54 | 3353 | 078 | 04 | 4734 |
| 118 | 34 | 11 | 1424 | 077 | 48 | 3755 |
| 119 | 34 | 12 | 0200 | 077 | 48 | 0558 |
| 120 | 34 | 13 | 0868 | 077 | 47 | 1819 |
| 121 | 34 | 13 | 5385 | 077 | 46 | 4044 |
| 122 | 34 | 14 | 3073 | 077 | 46 | 1091 |
| 123 | 34 | 21 | 5050 | 077 | 37 | 5769 |
| 124 | 34 | 21 | 5597 | 077 | 37 | 5047 |
| 125 | 34 | 22 | 5378 | 077 | 36 | 4646 |
| 126 | 34 | 23 | 3528 | 077 | 35 | 3571 |
| 127 | 34 | 24 | 4310 | 077 | 33 | 5936 |
| 128 | 34 | 25 | 3278 | 077 | 32 | 5211 |
| 129 | 34 | 25 | 4261 | 077 | 32 | 2289 |
| 130 | 34 | 27 | 1376 | 077 | 29 | 4823 |
| 131 | 34 | 28 | 3804 | 077 | 27 | 0665 |
| 132 | 34 | 29 | 5465 | 077 | 24 | 2110 |
| 133 | 34 | 41 | 1408 | 076 | 52 | 4420 |
| 134 | 34 | 40 | 5389 | 076 | 55 | 1976 |
| 135 | 34 | 40 | 3138 | 076 | 57 | 4082 |
| 136 | 34 | 40 | 0775 | 076 | 59 | 4007 |
| 137 | 34 | 40 | 0048 | 077 | 01 | 3566 |
| 301 | 33 | 51 | 3511 | 078 | 00 | 2889 |
| 302 | 33 | 51 | 2870 | 078 | 00 | 1839 |
| 303 | 33 | 51 | 2220 | 078 | 00 | 0221 |
| 304 | 33 | 51 | 1700 | 077 | 59 | 4931 |
| 305 | 33 | 51 | 1259 | 077 | 59 | 3287 |
| 306 | 33 | 51 | 0736 | 077 | 59 | 1769 |

| | | | | | | |
|-----|----|----|------|-----|----|------|
| 307 | 33 | 51 | 0273 | 077 | 59 | 0148 |
| 308 | 33 | 50 | 5664 | 077 | 58 | 4530 |
| 309 | 33 | 50 | 4910 | 077 | 58 | 2995 |
| 310 | 33 | 50 | 4435 | 077 | 58 | 1837 |
| 311 | 33 | 50 | 3421 | 077 | 58 | 0179 |
| 312 | 33 | 50 | 2844 | 077 | 57 | 4407 |
| 313 | 33 | 50 | 3810 | 077 | 57 | 4230 |
| 314 | 33 | 50 | 5268 | 077 | 57 | 4093 |
| 315 | 33 | 51 | 0992 | 077 | 57 | 4015 |
| 316 | 33 | 51 | 2323 | 077 | 57 | 3913 |
| 317 | 33 | 51 | 3605 | 077 | 57 | 3657 |
| 318 | 33 | 51 | 4887 | 077 | 57 | 3464 |
| 319 | 33 | 52 | 0092 | 077 | 57 | 3307 |
| 320 | 33 | 52 | 1500 | 077 | 57 | 3092 |
| 321 | 33 | 52 | 3328 | 077 | 57 | 2812 |
| 324 | 33 | 52 | 5663 | 077 | 57 | 2272 |
| 325 | 33 | 53 | 0654 | 077 | 57 | 1944 |
| 326 | 33 | 53 | 1942 | 077 | 57 | 1689 |
| 328 | 33 | 53 | 3041 | 077 | 57 | 1472 |
| 330 | 33 | 53 | 4113 | 077 | 57 | 1327 |
| 332 | 33 | 53 | 5611 | 077 | 57 | 0851 |
| 334 | 33 | 54 | 1105 | 077 | 57 | 0134 |
| 336 | 33 | 54 | 2619 | 077 | 56 | 5407 |
| 338 | 33 | 54 | 4284 | 077 | 56 | 4852 |
| 340 | 33 | 54 | 5502 | 077 | 56 | 4447 |
| 342 | 33 | 55 | 0980 | 077 | 56 | 4625 |
| 344 | 33 | 55 | 2365 | 077 | 56 | 4110 |
| 346 | 33 | 55 | 3747 | 077 | 56 | 3616 |

ELECTRONIC CORRECTOR ABSTRACT

Page 31

VESSEL : 2830

SHEET : PE-40-4-74

| TIME | DAY | PATTERN 1 | PATTERN 2 |
|--------|-----|-----------|-----------|
| 183221 | 151 | +00054 | +00019 |
| 232209 | | +00054 | +00019 |
| 000025 | 152 | +00054 | +00019 |
| 052330 | | +00054 | +00019 |
| 161616 | | +00054 | +00019 |
| 172530 | | +00054 | +00019 |
| 181001 | | +00062 | +00028 |
| 024454 | 153 | -00050 | +00013 |
| 171501 | | -00053 | +00018 |
| 235845 | 153 | -00053 | +00018 |
| 000005 | | -00053 | +00018 |
| 031501 | | -00055 | +00018 |
| 132101 | | -00058 | +00028 |
| 165341 | | -00058 | +00028 |
| 174754 | | -00058 | +00028 |
| 190001 | | -00041 | +00040 |
| 222401 | | -00044 | +00035 |
| 234900 | 154 | -00044 | +00035 |
| 000020 | | -00044 | +00035 |
| 055401 | | -00048 | +00029 |
| 135001 | | -00052 | +00023 |
| 173001 | | -00050 | +00024 |
| 191813 | | -00052 | +00018 |
| 213319 | | -00052 | +00018 |
| 000001 | 156 | -00052 | +00018 |
| 002101 | | -00054 | +00012 |
| 050801 | | -00055 | +00006 |
| 094801 | | -00057 | +00000 |
| 142601 | | -00059 | -00006 |
| 171501 | | -00056 | +00012 |
| 192808 | | -00056 | -00288 |
| 203001 | | -00056 | +00007 |
| 230001 | 156 | +00046 | +00020 |
| 000036 | | +00046 | +00020 |
| 130401 | | +00050 | +00022 |
| 141233 | | +00050 | +00022 |
| 153001 | | +00048 | +00016 |
| 180901 | | +00046 | +00010 |
| 205101 | | +00044 | +00004 |

ELECTRONIC CORRECTOR ABSTRACT

Page 32

VESSEL : 2830

SHEET : PE-40-4-74

| TIME | DAY | PATTERN 1 | PATTERN 2 |
|--------|-----|-----------|-----------|
| 14000 | 157 | +00044 | +00004 |
| 170605 | 161 | +00053 | +00013 |
| 002921 | 162 | +00053 | +00013 |
| 103914 | | +00053 | +00013 |
| 135712 | | +00053 | +00013 |
| 222514 | | +00053 | +00017 |
| 232101 | | +00052 | +00020 |
| 000001 | 163 | +00052 | +00020 |
| 025601 | | +00051 | +00023 |
| 065801 | | +00050 | +00025 |
| 105601 | | +00049 | +00028 |
| 224511 | | +00044 | +00018 |
| 114550 | 164 | +00045 | +00038 |
| 121231 | | +00045 | +00038 |
| 125657 | | +00045 | +00038 |
| 234310 | 164 | +00052 | +00026 |
| 000030 | | +00052 | +00026 |
| 011705 | | +00052 | +00026 |
| 044601 | | +00050 | +00027 |
| 111700 | | +00049 | +00027 |
| 164904 | 166 | +00049 | +00046 |
| 005900 | 167 | +00045 | +00024 |
| 123500 | | +00045 | -00008 |
| 000024 | 168 | +00042 | -00008 |
| 002342 | | +00042 | -00008 |
| 012215 | | +00042 | -00008 |
| 173808 | | -00036 | +00022 |
| 181442 | | -00036 | +00020 |
| 185553 | | -00036 | +00018 |
| 192819 | | -00036 | +00016 |
| 200913 | | -00036 | +00014 |
| 121949 | 169 | +00042 | -00077 |
| 180051 | | +00042 | -00077 |
| 184215 | | +00042 | -00077 |
| 000010 | | +00042 | -00077 |



151257Z MAY 74
FM LANTMARCEN MORVA
TO NOAA SHIP PEIRCE/WTEQ

CM

BT

UNCLAS

1. BOTTOM SAMPLING IN RESTRICTED AND DANGER AREA MAY BE WAIVED.
2. SHEET LAYOUT WITH TWO-TWENTIES AND TWO-FORTIES APPROVED AND IN MAIL.

BT

MOD 15/1415Z 4537KHZ RATT QSL THROUGH OAK ISLAND COAST GUARD KKK

DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES



Box 27687

Raleigh 27611

JAMES E. HOLSHOUSE, JR.
GOVERNORJAMES E. HARRINGTON
SECRETARY
TELEPHONE
AREA CODE 919-829-4884Division of Commercial & Sports Fisheries
Post Office Box 769
Morehead City, North Carolina 28557

May 20, 1974

Commander
NOAA Ship PIERCE
General Delivery
Morehead City, NC 28557

Dear Sir:

N. C. Division of Commercial & Sports Fisheries, Artificial Reef Section, is now involved in depositing material on the ocean floor to make reefs. This material consists of bundled tires tied together with weighted steel cable and other solid items such as old boats, concrete chunks, etc. All sights of construction of the reefs have been approved and permits issued by the Wilmington section of the Army Corps of Engineers. Three of the sights so far are to contain old liberty ships. These will be cut down so that there will be at least twenty feet of clearance from the surface to the reefs. No reef will be closer than twenty feet to the surface. Enclosed is a chart showing all of the existing and proposed reefs, a list of reef coordinates, more detailed chart of the reefs that you inquired about.

The New River and Topsail reefs at this time have only buoys and no material on the bottom as yet. The Riches Inlet reef is buoyed and contains four cables of bundled tires, a maximum profile of approximately five feet. The Wrightsville Beach reef contains from previous efforts one tug, two barges and one tank truck. The maximum profile is probably under fifteen feet. The sight is buoyed and the objects centrally located thin fifty feet of each other. The ship to be sunk at this sight will go approximately 1000 yards inshore of the tug and barges to be within the three mile limit.

I hope this description fills your requirements, and I will keep you posted of any change in our activities or plans.

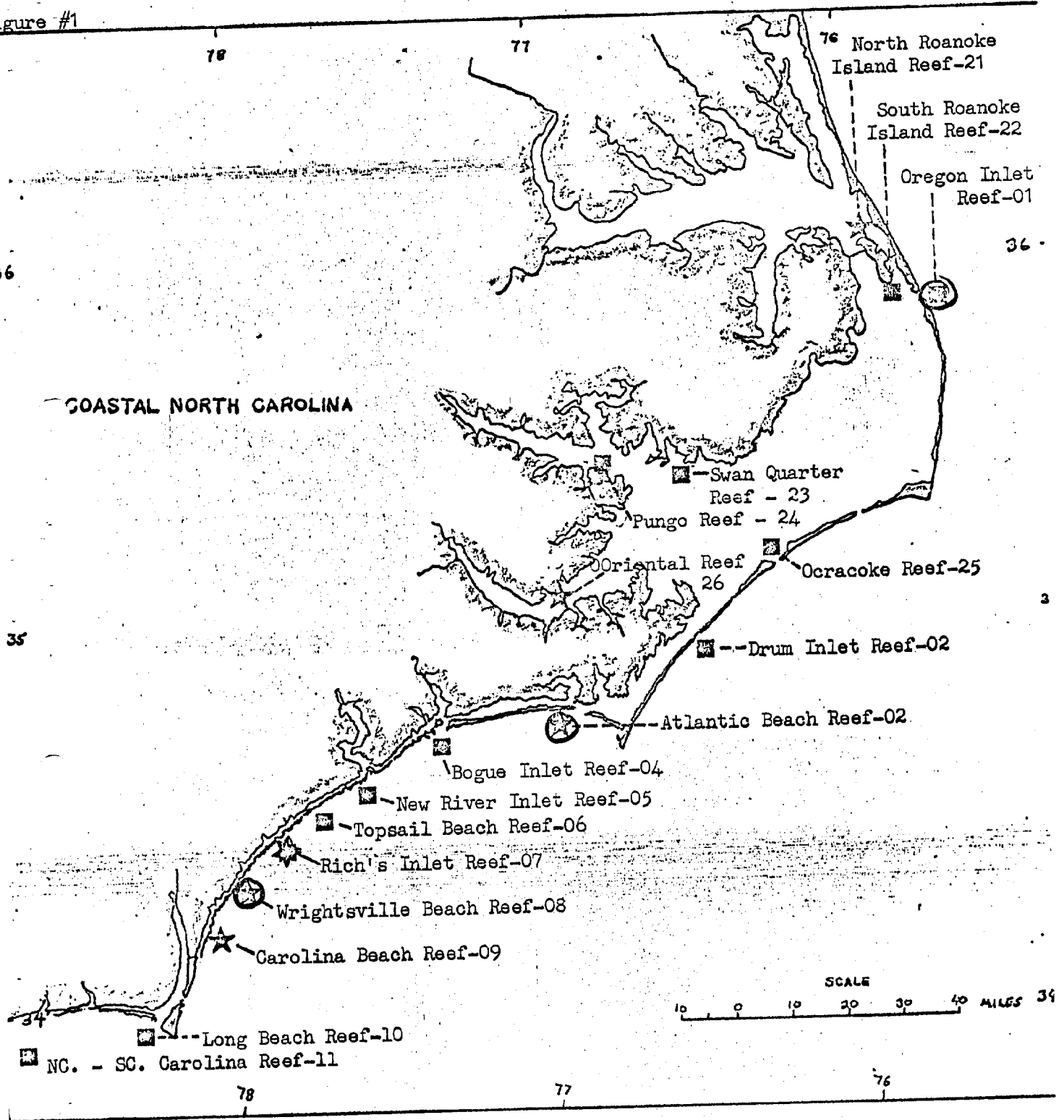
Sincerely,

Jeff Van Buren
Artificial Reef Section

JVB/bg

NORTH CAROLINA REEFS

Figure #1



★ -- Existing reefs to be expanded.

■ -- Proposed reef sites.

○ Oregon Inlet, Atlantic Beach, and Wrightsville Beach also will contain old Liberty Se



National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

Date: May 17, 1974

Reply to
Attn of: C3233

Subject: Assignment of Registry Numbers

To: Commanding Officer
NOAA Ship Peirce

The following hydrographic registry numbers H-9426 and H-9427 are assigned in accordance with the information listed below:

| <u>Registry No.</u> | <u>Field No.</u> | <u>Area</u> | <u>Project No.</u> |
|---------------------|------------------|--|--------------------|
| H-9426 | PE-40-3-74 | North Carolina Coast 34°15'N-34°35'N 77°08'W-77°48'W | OPR-437 |
| H-9427 | PE-40-4-74 | North Carolina Coast 34°24'N-34°43'N 76°47'W-77°22'W | OPR-437 |

George H. Mastrogianis

George H. Mastrogianis
Chief, Hydrographic Data Section
Marine Chart Division

C&GS-733M

U.S. DEPARTMENT OF COMMERCE
E53A
COAST AND GEODETIC SURVEY

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

[illegible]

more than one line per sample if necessary.

USCOMM-DC 37019-P66

13-11
7-74

OPR 437

POSITION DATA SHEET

LAUNCH PEIRCE

SHEET PE-40-4-74

REGISTRY NO. H- 9427

| Jul. Day | First Pos. No. | Time (GMT) | Last Pos. No. | Time (GMT) | Develop- ment Positions | Detached Positions | Rejected Positions | Duplicate Positions | Omitted Positions | Bottom Sample |
|----------|----------------|------------|---------------|------------|-------------------------|--------------------|--------------------|---------------------|-------------------|------------------------------|
| 151 | 1 | 18 32 21 | 77 | 23 24 04 | - | 25 | 2, | - | - | - |
| 152 | 078 | 23 33 09 | 131 | 03 20 13 | - | - | - | - | - | 083, 088, 094 |
| - | - | - | - | - | - | - | - | - | - | 083, 088, 094, 100, 104, 113 |
| - | - | - | - | - | - | - | - | - | - | 119, 125, 131 |
| 152 | 132 | 03 30 26 | 187 | 07 02 54 | - | - | - | - | - | 137, 143, 149, 155, 160 |
| 152 | 188 | 07 11 14 | 255 | 11 26 19 | - | - | - | - | - | - |
| 152 | 256 | 11 32 55 | 329 | 16 07 48 | - | - | - | - | - | - |
| 152 | 330 | 16 16 16 | 370 | 19 29 54 | - | - | - | - | - | 337, 343 |
| 152 | 371 | 19 29 54 | 402 | 21 38 05 | - | - | - | - | - | - |
| 153 | 403 | 02 44 54 | 429 | 04 21 01 | - | - | - | - | - | - |
| 153 | 430 | 11 42 23 | 473 | 15 33 42 | - | - | 430 | - | - | - |
| 153 | 474 | 15 36 46 | 539 | 19 43 15 | - | - | - | - | - | - |
| 153 | 540 | 19 45 16 | 601 | 23 44 15 | - | - | - | - | - | - |
| 154 | 602+1 | 23 44 55 | 663 | 03 40 53 | - | - | - | - | - | - |
| 54 | 663+1 | 03 41 33 | 724 | 07 32 10 | - | - | - | - | - | - |
| 154 | 724+1 | 07 32 50 | 788 | 11 37 08 | - | - | - | - | - | - |
| 154 | 788+1 | 11 37 48 | 846 | 15 19 15 | - | - | - | - | - | - |

CAM3-11
3-7-74

OPR 437

POSITION DATA SHEET

LAUNCH

PEIRCE

SHEET

PE-40-4-74

REGISTRY NO. H- 9427

| Jul. Day | First Pos. No. | Time (GMT) | Last Pos. No. | Time (GMT) | Develop- ment Positions | Detached Positions | Rejected Positions | Duplicate Positions | Omitted Positions | Bottom Sample |
|-------------|----------------------|---------------|---------------------|---------------|-------------------------------|-----------------------|-----------------------|------------------------|----------------------|------------------------|
| 1 | 154 | 847 | 15 21 24 | 893 | 19 30 43 | — | — | — | — | 875 |
| 1 | 154 | 894 | 19 32 38 | 957 | 19 38 20 | — | — | — | — | 880 |
| 1 | 155 | 957 | 23 39 00 | 1014 | 03 10 36 | — | — | — | — | — |
| 1 | 155 | 1015 | 03 57 62 | 1068 | 07 35 02 | — | — | — | — | — |
| 1 | 155 | 1068 | 07 35 42 | 1134 | 11 38 40 | — | — | — | — | — |
| 1 | 155 | 1134 | 11 39 22 | 1193 | 15 12 30 | — | — | — | — | — |
| 1 | 155 | 1194 | 15 14 35 | 1261 | 19 56 53 | — | — | — | — | — |
| 1 | 155 | 1262 | 20 06 48 | 1311 | 23 37 54 | — | (1267) | — | — | 1269 1269 1274 1278 |
| 1 | 156 | 1312 | 23 40 16 | 1368 | 03 23 55 | — | — | — | — | — |
| 1 | 156 | 1369 | 03 25 54 | 1437 | 07 50 30 | — | — | — | — | — |
| 1 | 156 | 1438 | 07 52 24 | 1500 | 11 47 09 | — | — | — | — | — |
| 1 | 156 | 1501 | 11 49 38 | 1564 | 15 44 06 | — | — | — | — | — |
| 1 | 156 | 1565 | 15 46 36 | 1600 | 17 16 37 | — | — | — | — | — |
| 1 | 156 | 1601 | 19 18 48 | 1631 | 24 45 36 | — | (1621) (1630) | — | — | Page 41 |
| 1 | 157 | 1631 | 23 49 16 | 1687 | 03 28 19 | — | — | — | — | — |
| 1 | 157 | 1688 | 03 30 37 | 1746 | 07 10 26 | — | — | — | — | — |
| 1 | 157 | 1747 | 07 17 13 | 1816 | 11 39 10 | — | — | — | — | — |

11-74

OPR 437

POSITION DATA SHEET

REGISTRY NO. H- 9427

SHEET PE 40-4-74

LAUNCH PEIRCE

| Jul. Day | First Pos. No. | Time (GMT) | Last Pos. No. | Time (GMT) | Develop-ment Positions | Detached Positions | Rejected Positions | Duplicate Positions | Omitted Positions | Bottom Sample |
|----------|----------------|------------|---------------|------------|------------------------|--------------------|--------------------|---------------------|-------------------|---------------|
| 157 | 1817 | 130425 | 1852 | 152845 | — | — | — | — | — | 1821, 1827 |
| 157 | 1853 | 153100 | 1918 | 172833 | — | — | — | — | — | — |
| 157 | 1919 | 193016 | 1952 | 213933 | — | — | 1930 | — | — | — |
| 161 | 1953 | 171605 | 1990 | 193917 | — | — | — | — | — | — |
| 161 | 1990+1 | 193957 | 2052 | 232451 | — | — | — | — | — | — |
| 162 | 2053 | 233643 | 2110 | 025726 | — | — | — | — | — | — |
| 162 | 2111 | 030328 | 2182 | 072947 | — | — | — | — | — | — |
| 162 | 2183 | 074208 | 2246 | 113954 | — | — | — | — | — | — |
| 162 | 2247 | 114302 | 2306 | 153626 | — | — | 2249, 2248 2249 | — | — | — |
| 162 | 2307 | 153948 | 2363 | 185127 | — | — | — | — | — | — |
| 162 | 2364 | 221614 | 2385 | 234625 | — | — | — | — | — | 2364 |
| 162 | 2386 | 234918 | 2440 | 033036 | — | — | — | — | — | — |
| 162 | 2441 | 033227 | 2506 | 073053 | — | — | — | — | — | — |
| 163 | 2507 | 073319 | 2573 | 114520 | — | — | — | — | — | — |
| 163 | 2574 | 114753 | 2618 | 145428 | — | — | 2588 | — | — | — |
| 163 | 2619 | 224511 | 2673 | 233751 | — | — | — | — | — | — |
| 164 | 2674 | 114550 | 2693 | 154726 | — | — | — | — | — | — |

13-11
-74

OPR 437

POSITION DATA SHEET

REGISTRY NO. H- 9427

SHEET PE-40-4-74

LAUNCH PEIRCE CS-28

| Jul. Day | First Pos. No. | Time (GMT) | Last Pos. No. | Time (GMT) | Develop- ment Positions | Detached Positions | Rejected Positions | Duplicate Positions | Omitted Positions | Bottom Sample |
|----------|----------------|------------|---------------|-------------------|-------------------------|--------------------|---|---------------------|-------------------|---------------|
| 164 | 2694 | 155008 | 2754 | 192438 | — | — | — | — | — | — |
| 164 | 2754 | 192720 | 2763 | 211529 | — | — | REJECTED 4 SOUNDINGS AFTER | — | — | — |
| 164 | 2784 | 234310 | 2834 | 031509 | — | — | — | — | — | — |
| 165 | 2835 | 031710 | 2900 | 072118 | — | — | — | — | — | — |
| 165 | 2901 | 072351 | 2924 2934 | 112958 084455 | — | — | — | — | — | — |
| 165 | 2930 | 122047 | 2984 | 154659 | — | — | — | — | — | — |
| 165 | 2985 | 154850 | 3026 | 182643 | — | — | REJECTED ALL SOUNDINGS AFTER FY 3026 | — | — | — |
| 166 | 3027 | 164904 | 3037 | 172601 | — | — | 3038, 3039 3040 | — | — | — |
| 167 | 3038 | 010000 | 3072 | 031838 | — | — | — | 3038, 3039 3040 | — | — |
| 167 | 3073 | 032116 | 3089 | 042509 | — | — | 3088, 3089 | — | — | — |
| 167 | 3088 | 123537 | 3134 | 152719 | — | — | — | 3088, 3089 | — | — |
| 167 | 3135 | 153533 | 3193 | 192938 | — | — | — | — | — | — |
| 167 | 3194 3222 | 193521 | 3262 | 233955 | — | — | — | — | — | — |
| 168 | 3263 | 234144 | 3294 3350 | ATM OUT 033911 | — | — | — | — | — | Page 43 |
| 168 | 3295 | 035641 | 3346 | 0944 071200 | — | — | — | — | — | — |
| 168 | 3347 | 071202 | 3418 | 113100 | — | — | — | — | — | — |
| 168 | 3319 | 113516 | 3466 | 142632 | — | — | 3460 THRU 3466 | — | — | — |

OPR 437

POSITION DATA SHEET

REGISTRY NO. H- 9427

SHEET PE-40-A-74

LAUNCH · PEIRCE

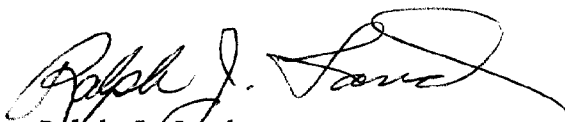
[illegible]

APPROVAL SHEET

Field No. PE 40-4-74

Registry No. H-9427

All field work and processing of data from this hydrographic survey was under my immediate, daily supervision. The boat sheets and all records have been reviewed and are approved by me. This survey is complete and adequate to supersede all prior surveys of this area.



Ralph J. Land

CDR, NOAA

Commanding, NOAA Ship PEIRCE

2-18-71

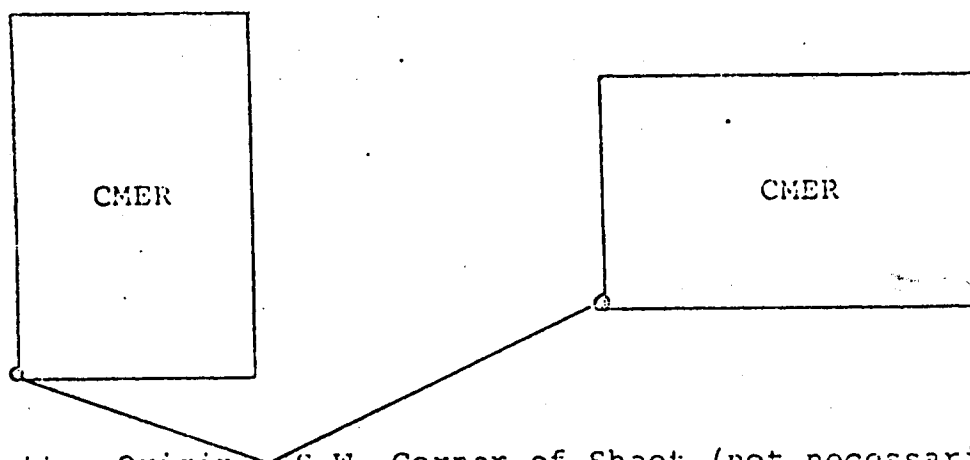
Dorothy Calland
November 4, 1974

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

1. Project No. OPR-437 4. Requested By Verification Branch
2. Reg. No. H-9427 5. Ship or Office AMC
3. Field No. PE-40-4-74 6. Date Required A.S.A.P.
7. Polyconic ☒ Modified Transverse Mercator ☐
8. Central Meridian of Projection 77° 02' 00"
9. Survey Scale: 1: 40,000
10. Size of Sheet (check one):
36 x 54 ☐ 36 x 60 ☒ Other ☐ Specify _____
11. Sheet Orientation (check one):
NYX = 1 ☐ NYX = 0 ☒
N N



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)
Latitude 34° 23' 36"
Longitude 77° 22' 30"
13. G.P.'s of triangulation and/or signals attached ☐
14. Material Desired: Tracing Paper ☐ Mylar ☒
Smooth Sheet ☒ Other ☐ Specify _____
15. Remarks: _____

Verifier: F. Saunders

VERIFICATION BRANCH
PLOTTER NOTE TO EDP (ANC)
SURVEY H-9427) OPR 437 - PE-40-4-74

This branch has completed the verification of the sounding overlay.

There are

- 1-- positions to be inserted^{number}
- 0-- records to be inserted
- 75-- records to be deleted by field
- 0-- positions to be changed
- 0-- soundings to be corrected
- 0-- soundings to be excessed

The NP excess position program is not requested for this plot.
There are about - position numbers effected.

Distortion point tick origin shall be

34° 24' 30"
77° 21' 00"

Sounding orientation is to be normal 15° 30° 45°

Reference station to be plotted is

at 34° 40' 31.38" - Signal 135 Emerald 1962
76° 57' 40.82" Recovered 1965

Cards have been keypunched for all changes and accompany this note.

After all corrections have been applied, please plot the smooth sheet with plotter origin Same as position overlay.

and size

We will pass over the soundings overlay on this survey and go to the smooth sheet.

W. L. Jonns
Chief, Verification

Date October 3, 1974

Norfolk, Va.

VERIFICATION NOTE TO EDP-AMC
Survey H-9427 Field No. PE-40-4-74
OPR 437

The following overlays and printouts (with additional changes) are requested by the Verification Branch:

CONTROL OVERLAY TO POSITION OVERLAY AND PRINTOUT

Control overlay verified _____ Plot position overlay and printout _____
Change point of origin _____ Change signals _____
Change Signal No. origin _____ Enlarge congested area _____
Plot Sub-Plans _____ Cards punched _____
Plot electronic arcs _____

POSITION TO SOUNDING OVERLAY AND PRINTOUT

Position overlay verified yes Change point of origin no
Plot sounding overlay and printout no
Plot smooth sheet (skip sounding overlay) yes
Plot excess overlay levels 1, 2, 3 level #1
Plot soundings at regular, 15, 30, or 45 Regular
Plot soundings in fms tenths to 31 and half fms to 101 no
Plot sounding overlay in color or black ink Black
Change Signal No. origin yes Cards punched yes
Request sounding corrector printout yes

SOUNDINGS CORRECTOR PRINTOUT

Change Velocity correctors no Change Tide correctors no
Change TRA correctors no

SOUNDING OVERLAY TO SMOOTH SHEET

Sounding overlay verified _____ Plot smooth sheet (mylar) or Paper _____
Proj. blue ball point pen and 10mm black ticks _____
Plot revised excess overlay level 1, 2, 3 _____
Change Signal No. origin _____ Plot soundings at regular, 15, 30, or
Plot distortion points 45
Plot stamp no. 42

This information only contains what the Verification Branch is requesting - the cover letter will supply the additional information.

Stamp #42
Origin 34° 26'
76° 48'

Distortion Point
Origin 34° 24' 30"
77° 21' 00"

No. 42 HYDROGRAPHIC SURVEY
Line PE-40-4-74 Reg. No. H-9427
40,000
Plotted: _____ Verified _____
EDP-AMC GET
EDP-AMC ELS
none
none
No. Sta. N.A. 1927
Sta. Emerald, 1962
34° 40' 966.9 m. Adj.
Long. 76° 57' 1039.3 m. Adj. xx

VERIFICATION NOTES
SURVEY H-9427

General

This appears to be an excellent basic survey. Soundings are in good agreement at crossings and the depth curves adequately delineate the bottom features.

The few minor problems experienced during verification are listed in the enclosed "Plotter Notes".

No preliminary sounding overlay was made for this survey. After the verification of the position overlay and the sounding printout a smooth sheet was made and the needed changes were made by hand.

Norfolk, Va.
December 9, 1974

William L. Jonns
William L. Jonns
Chief, Verification Br.
AMC.

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H- 9427

- A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/~~XXXXXXXX~~ been made. A new final sounding printout has/~~XXXXXXXX~~ been made.

Date: Dec.10,1974

Signed: William L. Jonns
Title: William L. Jonns
Chief, Verification Branch

- B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: Dec.10,1974

Signed: C. Dale North, Jr.
Title: C. Dale North, Jr. LCDR, NOAA
Chief, Processing Division



Date : 21 June 1974

Reply to Attn. of:

To : Chief, Tides Section C331

From : Commanding Officer
NOAA Ship PEIRCE


Subject: Verified Hourly Heights of Tides
Project Scope, OPR-437, PE-40-4-74, H-9427

Please provide hourly heights of tides and the value of
MLW on the tide staff of the following tide gages:

- 1.) Wilmington Beach, North Carolina
Lat 34 01.9 N, Long 77 53.6 W
- 2.) Ocean City Beach, North Carolina
Lat 34 27.1 N, Long 77 29.71 W
- 3.) Atlantic Beach, North Carolina
Lat 34 41.6 N, Long 76 42.7 W

The survey operations began on 27 May 1974 and terminated
on 18 June 1974. Actual times of hydrographic operations
are attached.

Please forward the requested information directly to At-
lantic Marine Center, ATTN: CAM22 and an informational copy
to the ship.


Ralph J. Land
Cdr., NOAA

ATLANTIC MARINE CENTER
VERIFICATION OF SMOOTH TIDES

SURVEY H-9427

PLANE OF REFERENCE MLW OR MLLW
TIME MERIDIAN 0 GMT
HEIGHT DATUM ON STAFFS 1. 3.2 2. 3.8 3. _____

| TIDE STATIONS | POSITION | TYPE GAGE | TIME CORR. | | HEIGHT CORR. * | |
|---------------|----------|--------------|------------|------|----------------|------|
| | | | H.W. | L.W. | H.W. | L.W. |

1. Wilmington Beach 34° 02'
N.C. Y 77° 54'

2. Atlantic Beach 34° 42'
N.C. Y 76° 43'

3. Ø
Y

HOURLY HEIGHTS ☐ FROM ROCKVILLE OFFICE
☒ FROM FIELD MARIGRAMS

VERIFIED BY: Rockville

TIDE ZONING ☐ NOT APPLICABLE
☐ BY COMPUTER
☒ FROM TWO OR MORE GAGES

LIMITS AND DESCRIPTION OF ZONING METHODS

TIDE CORRECTIONS COMPILED ☒ BY COMPUTER
☐ MANUALLY

VERIFIED BY: GFT
VERIFIED BY: _____

HEIGHT OF NHV ABOVE PLANE OF REFERENCE 1.0

TIDE CORRECTIONS VERIFIED ON SOUNDING PRINTOUT BY: GFT

DATE OF VERIFICATION 10/2/74

*OR RATIO

EXAMINED & APPROVED

GEOGRAPHIC NAMES

H-9427

| Name on Survey | A ON CHART NO. | B ON PREVIOUS SURVEY NO. | C ON U.S. QUADRANGLE MAPS | D FROM LOCAL INFORMATION | E ON LOCAL MAPS | F P.O. GUIDE OR MAP | G RAND McNALLY ATLAS | H U.S. LIGHT LIST | K |
|-------------------|-------------------|--------------------------------|---------------------------------|--------------------------------|--------------------|------------------------|----------------------------|----------------------|----|
| ATLANTIC BEACH ✓ | | | | | | | | | 1 |
| ATLANTIC OCEAN ✓ | | | | | | | | | 2 |
| BEAR BEACH ✓ | | | | | | | | | 3 |
| BEAR INLET ✓ | | | | | | | | | 4 |
| BOGUE BANKS ✓ | | | | | | | | | 5 |
| BOGUE INLET ✓ | | | | | | | | | 6 |
| BROWNS INLET ✓ | | | | | | | | | 7 |
| NEW RIVER INLET ✓ | | | | | | | | | 8 |
| ONSLow BAY ✓ | | | | | | | | | 9 |
| ONSLow BEACH | | | | | | | | | 10 |
| SALTER PATH ✓ | | | | | | | | | 11 |
| | | | | | | | | | 12 |
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| | | | | | | | | | 25 |

Approved

Chas. E. Harrington

Staff Geographer

13 Feb. 1975

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9427 (PE 40-4-74)
OPR-437

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

| RECORD DESCRIPTION | AMOUNT | RECORD DESCRIPTION | AMOUNT |
|---------------------------|--------|--------------------|--------|
| SMOOTH SHEET & 3-Overlays | 1 | BOAT SHEETS | 1 |
| DESCRIPTIVE REPORT | 1 | OVERLAYS | 1 |

| DESCRIPTION | DEPTH RECORDS | HORIZ. CONT. RECORDS | PRINTOUTS | TAPE ROLLS | PUNCHED CARDS | ABSTRACTS/SOURCE DOCUMENTS |
|-------------|---------------|----------------------|-----------|------------|---------------|----------------------------|
| ENVELOPES | 1 | | x2x | | | 3-Visio Data |
| CAHIERS | | | x2x | | | |
| VOLUMES | | 1 | | | | |
| BOXES | | | | | | |

T-SHEET PRINTS (List)

N/A

SPECIAL REPORTS (List)

None

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

| PROCESSING ACTIVITY | AMOUNTS | | | |
|--|------------------|--------------|--------|--------|
| | PRE-VERIFICATION | VERIFICATION | REVIEW | TOTALS |
| POSITIONS ON SHEET | | | | 3731 |
| POSITIONS CHECKED | | 10 | 32 | |
| POSITIONS REVISED | | 30 | 0 | |
| DEPTH SOUNDINGS REVISED | | 81 | 62 | |
| DEPTH SOUNDINGS ERRONEOUSLY SPACED | | - | 0 | |
| SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED | | - | 0 | |
| | TIME (MANHOURS) | | | |
| | | | | |
| TOPOGRAPHIC DETAILS | | | 0 | |
| JUNCTIONS | | 3 | 23 | |
| VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS | | 10 | 11 | |
| SPECIAL ADJUSTMENTS | | - | 8 | |
| ALL OTHER WORK | | 16 | 43 | |
| TOTALS | | 89 | 85 | |

| | | |
|---------------------------------------|---------------------------|-------------------------|
| PRE-VERIFICATION BY | BEGINNING DATE | ENDING DATE |
| VERIFICATION BY Dorothy C. Calland | BEGINNING DATE 7/12/74 | ENDING DATE 11/11/74 |
| REVIEW BY K. R. Malychke | BEGINNING DATE 4/21/75 | ENDING DATE 5/27/75 |

Insp. D.R. Ramesburg 8-13-75 25 hrs.

Partial RHC 4/1/76

Reg. No. 9427

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey the following shall be completed:

CARDS CORRECTED

DATE _____ TIME REQ'D _____ INITIALS _____

REMARKS:

Reg. No. 9427

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE _____ TIME REQ'D _____ INITIALS _____

REMARKS:

H-9427

Items for Future Presurvey Review

The bottom is considered adequately developed on the present survey. Wire-drag investigation is desirable on the 17-foot wreck at latitude $34^{\circ}40.32'$, longitude $76^{\circ}44.73'$.

| <u>Position</u> | <u>Index</u> | <u>Bottom Change</u> | <u>Use</u> | <u>Resurvey</u> |
|-----------------|--------------|----------------------|--------------|----------------------|
| <u>Lat.</u> | <u>Long.</u> | <u>Index</u> | <u>Index</u> | <u>Cycle (Years)</u> |
| 342 | 0772 | 5 | 2 | 25 |
| 343 | 0772 | 6 | 2 | 25 |
| 342 | 0771 | 3 | 2 | 50 |
| 343 | 0771 | 5 | 2 | 25 |
| 343 | 0770 | 4 | 2 | 25 |
| 343 | 0765 | 5 | 2 | 25 |

OFFICE OF MARINE SURVEYS AND MAPS
MARINE SURVEYS DIVISION
MODIFIED HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9427

FIELD NO. PE-40-4-74

North Carolina, Onslow Bay, off New River Inlet to Atlantic Beach

SURVEYED: May 31 - June 19, 1974

SCALE: 1:40,000

PROJECT NO.: OPR-437

SOUNDINGS: Ross Digital Depth
Recorder, DE-723-D Depth
Recorder

CONTROL: Raydist
(Hyperbolic)

| | |
|-------------------------|---------------------------|
| Chief of Party | R. J. Land |
| Surveyed by | R. J. Land |
| | J. K. Callahan |
| | D. L. Suloff |
| | J. M. Barnhill |
| | P. D. Harman |
| | K. M. Holden |
| | C. D. Mason |
| | B. B. Johnson |
| Automated Plot by | Calcomp 618 Plotter (AMC) |
| Verified by | D. C. Calland |
| Reviewed by | K. R. Malycke |
| | Date: May 21, 1975 |
| Inspected by | D. J. Romesburg |

1. Control and Shoreline

The origin of control is adequately covered in paragraph F and the electronic control report on page 23 of the Descriptive Report.

There is no shoreline on this survey.

2. Hydrography

A. Depths at crossings are in very good agreement with minor differences of 1 foot

B. The usual depth curves were adequately delineated. The 36-foot curve was added to better delineate the bottom configuration.

C. The development of the bottom configuration and investigation for least depths are considered adequate.

3. Condition of Survey

The sounding records, smooth plotting, and Descriptive Report are complete and conform to the requirements of the Hydrographic Manual supplemented by the ^{Instrumental} Instruction Manual - Automated Hydrographic Surveys except that an ~~initial~~ correction (up to + 0.8 of a foot) was not incorporated in the TRA correctors and therefore not applied to present survey soundings. This error does not significantly affect the quality of the survey and does not justify the time required to revise the soundings. Crossline and junctional soundings were corrected only to resolve conflicts.

4. Junctions

Adequate junctions were effected with H-9426 (1974) on the southwest, H-9434 (1974) on the northeast, H-9042 (1969) and H-9421 (1974) on the east, and H-9044 (1969) on the south. A 17-foot wreck was transferred to the present survey in latitude $34^{\circ}40.32'$, longitude $76^{\circ}44.73'$ from junctional survey H-9421 (1974). There are no contemporary surveys to the north. However, present survey depths are in harmony with those charted in this area.

5. Comparison with Prior Surveys

| | | | |
|----|--------|-----------|----------|
| A. | H-577 | (1857) | 1:40,000 |
| | H-644 | (1858-59) | 1:40,000 |
| | H-2066 | (1888) | 1:10,000 |

These prior surveys fall in the area of the present survey but are not discussed in this review.

| | | | |
|----|--------|-----------|----------|
| B. | H-4770 | (1927) | 1:40,000 |
| | H-4767 | (1927) | 1:40,000 |
| | H-4696 | (1926-27) | 1:40,000 |
| | H-7963 | (1952-53) | 1:12,500 |

These surveys, taken together, cover the entire area of the present survey. A comparison between the prior and present survey reveals random differences of 1-3 feet caused primarily by the susceptibility of the bottom materials to shifting by tidal and seasonal currents. Several bottom characteristics were carried forward from H-4767 (1927) and H-4696 (1926-27) to supplement the present survey in an area where the danger from unexploded ordnance precluded taking bottom samples.

C. H-8247 (1955) 1:20,000

No conflicts exist between depths on the present survey and the effective wire-drag depths on this prior survey.

With the addition of the prior bottom characteristics, the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Charts 11547 (423) (latest print date, 11/2/74)
 420 (latest print date, 2/16/74)
 11542 (777) latest print date, 8/17/74)
 1234 (latest print date, 3/16/74)
833-SC (latest print date, 3/30/74)

A. Hydrography

The charted hydrography originates with the previously discussed prior surveys which require no further consideration.

The fish haven charted in the vicinity of latitude 34°40', longitude 76°45' originates with Chart Letter 1263 of 1964. Although not investigated on the present survey, this feature was confirmed on Julian Day 165 between positions 2986 and 2987 and should be retained as charted.

A 17-foot wreck, possibly a part of this fish haven, was located on junctional survey H-9421 (1974) in latitude 34°40.32', longitude 76°44.73' approximately 700 meters northeast of the charted position of the fish haven and was transferred to the present survey. The 17-foot wreck should be added to the chart.

B. Aids to Navigation

Aids located on the present survey are in substantial agreement with their charted positions and adequately serve the purposes intended.

The present survey is adequate to supersede the charted hydrography within the common area.

7. Compliance with Project Instructions

This survey adequately complies with Project Instructions.

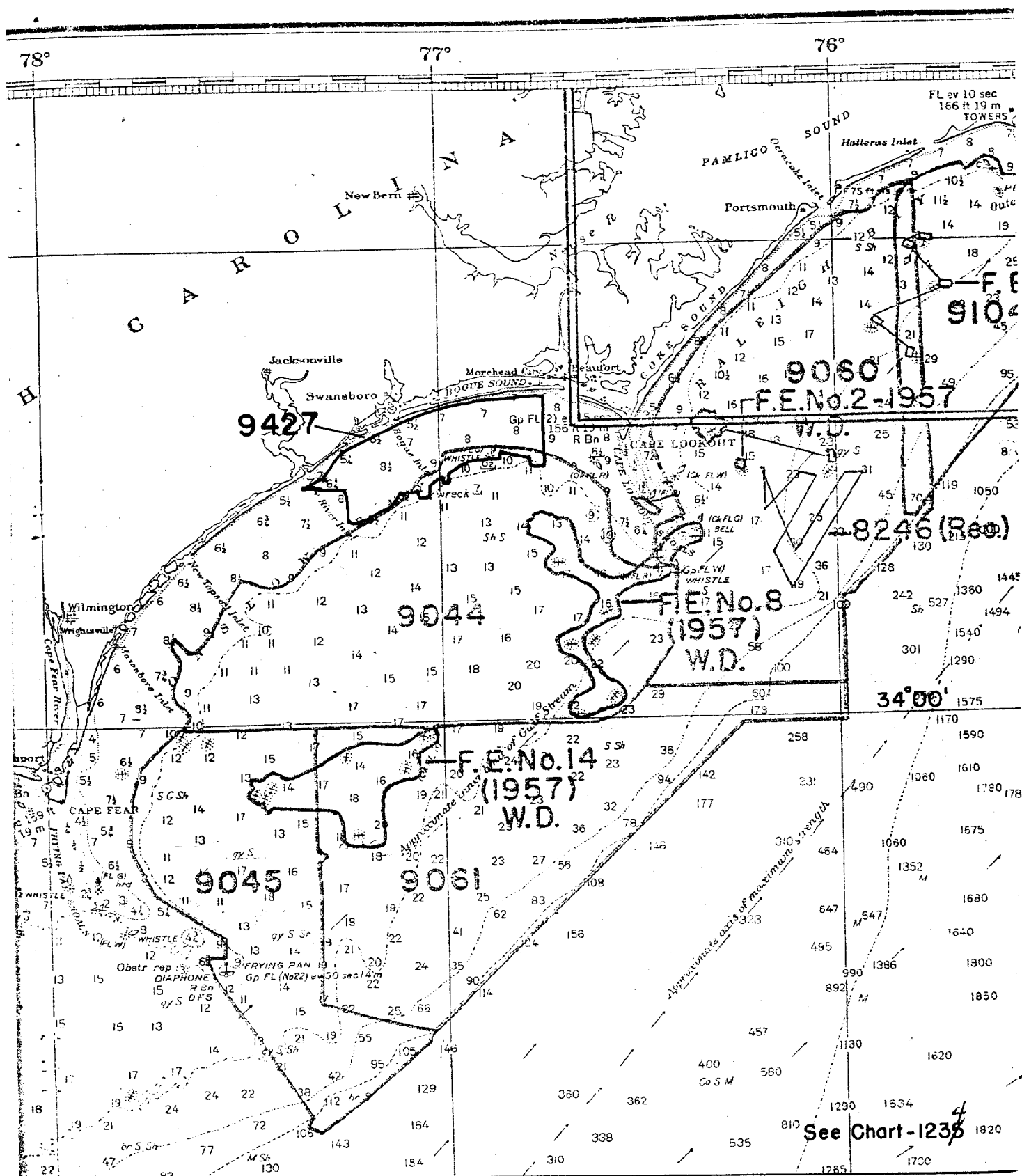
8. Additional Field Work

This is a very good basic survey and no additional field work is required. Wire-drag investigation of the 17-foot wreck at latitude $34^{\circ}40.32'$, longitude $76^{\circ}44.73'$ should be made at an appropriate time.

Examined and Approved:

A. J. Patrick
Chief
Marine Surveys Division

Robert C. Johnson
Associate Director
Office of Marine Surveys and
Maps



RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9427

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Enter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

| CHART | DATE | CARTOGRAPHER | REMARKS |
|------------------|--------------------|----------------------|---|
| 1234 | 2/11/75 | S PERKINS | Part After Verification Drawing No. Exam for Crit CORR - revised curves and soundings |
| 1234 (11543) | 6/7/76 | P. SPENCE | Full Part Before After Verification Review Inspection Signed Via Drawing No. Fully applied hydro, partially applied through charts 1420 and 8335C |
| 420 (11545) | 6/2/76 | P. SPENCE | Full Part Before After Verification Review Inspection Signed Via Drawing No. Fully applied hydro in area covered by Hydro survey |
| 8335C PAGE B | 6/7/76 | P. SPENCE | Full Part Before After Verification Review Inspection Signed Via Drawing No. Fully applied hydro in area covered by Hydro survey |
| 777 (11542) | 6/23/76 | P. SPENCE | Full Part Before After Verification Review Inspection Signed Via Drawing No. Fully applied hydro in area covered by Hydro survey |
| 8335C PAGE A | 12-15-76 | Richard L. Hogan | Full Part Before After Verification Review Inspection Signed Via Drawing No. FULLY APPLIED HYDRO |
| 1235 (11539) | 1-2-77 | J.M. O'Connor | Full Part Before After Verification Review Inspection Signed Via Drawing No. Application made through junction with chrt 1234 Rev chrt 1235 2-23-77 |
| 11547 | 5-10-81 | Martha Molman | Full Part Before After Verification Review Inspection Signed Via Drawing No. REAPPLIED SURVEY TO NEW EXTENSION (SCALE 1:12500) DRAWING NO. 30 |
| 11520 | 11/1/82 | Mark Frue | Full Part Before After Verification Review Inspection Signed Via Drawing No. 81 Fully applied thru Chart 11543 |
| 11547 | 2-17-83 | B. F. ... | Full Part Before After Verification Review Inspection Signed Via Drawing No. 43 Fully applied through chrt 11543 |